

ABSTRACT

[Abstract of the Disclosure]

A high-efficiency, compact color illuminating system and a projection type image display apparatus using the color illuminating system are provided. The color illuminating system includes a light source, a color filter that separates the light beams of different wavelengths from the white light received from the light source and make the light beams travel in a predetermined direction; a spiral lens disc that alters the paths of the light beams that have passed through the color filter while turning and periodically scrolls the light beams by rotational movement and has a spiral cylindrical lens array at least one surface; and a beam splitter that splits the light beams from the color filter to enter the at least two effective regions of the spiral lens disc. The projection type image display apparatus includes the color illuminating system, an optical unit that alters the direction in which light from one of the first and second effective regions of the spiral lens disc scrolls such that light beams from the first and second effective regions scroll in the same direction and that combines the light beams from the first and second effective regions, an image forming unit that generates images using scrolling light from the optical unit, and a projection lens unit that enlarges and projects the images formed by the image forming unit on a screen.

[Representative Drawing]

FIG. 10